CLAIMS

1. An aircraft navigation aid method, characterized in that it comprises the following steps consisting in:

a) computing a feeler line according to the wind, in other words the ground path that the aircraft would follow if a turn at the maximum rate applicable to the current flight phase of the aircraft were to begin at that instant,

b) displaying on a navigation screen the feeler line and a ground path to be captured, in order to determine how to place the aircraft in a turn in order to optimize the capture of the path to be captured.

2. The method as claimed in the preceding claim, characterized in that it also comprises a step consisting in giving the turn command when the feeler line is tangential to the ground path to be captured.

3. The method as claimed in any one of the preceding claims, characterized in that each computation and/or display and/or conditional turn command step is controlled automatically or by the pilot of the aircraft.

4. The method as claimed in any one of the preceding claims, characterized in that the form of a right feeler line is given by a parametric equation of the form:

$$\begin{cases} x = \left[R_{air}[1-\cos(t\,\dot{\theta})] + V_x\, t\right]\cos d - \left[R_{air}\sin\left(t\,\dot{\theta}\right) + V_y\, t + D_v\right]\sin d \; l\, l' \\ y = \left[R_{air}[1-\cos(t\,\dot{\theta})] + V_x\, t\right]\sin d + \left[R_{air}\sin\left(t\,\dot{\theta}\right) + V_y\, t + D_v\right]\cos d \; l\, l' \end{cases}$$

R_{air} being the radius of the turn that the airplane would have without wind, $\dot{\theta}$ being the angular speed

of the airplane in the air during the turn that the airplane would have without wind, V_x and V_y being the components of the wind speed vector, t being the time with t = 0 at the start of the turn, D_v being the distance to the turn and d being the drift angle.

5. The method as claimed in any one of claims 1 to 3, characterized in that the form of a left feeler line is given by a parametric equation of the form:

$$\begin{cases} x = \left[R_{air}[1-\cos(t\,\dot{\theta})] + V_x\ t\right]\cos d - \left[R_{air}\sin\left(t\,\dot{\theta}\right) + V_y\,t + D_v\right]\sin d\ ll' \\ y = \left[R_{air}[1-\cos(t\,\dot{\theta})] + V_x\ t\right]\sin d + \left[R_{air}\sin\left(t\,\dot{\theta}\right) + V_y\,t + D_v\right]\cos d\ ll' \end{cases}$$

R_{air} being the radius of the turn that the airplane would have without wind, $\dot{\theta}$ being the angular speed of the airplane in the air during the turn that the airplane would have without wind, V_x and V_y being the components of the wind speed vector, t being the time with t = 0 at the start of the turn, D_v being the distance to the turn and d the drift angle.

6. An onboard aircraft navigation aid device comprising at least a program memory and a user interface, characterized in that the program memory comprises a feeler line computation program, in other words the ground path that the aircraft would follow if a turn at the maximum rate applicable to the current flight phase of the aircraft were to begin at that instant, and a program for displaying on the user interface a path to be captured and the feeler line.

7. The device as claimed in the preceding claim, characterized in that the user interface comprises means of controlling the computation of the feeler

line.

8. The device as claimed in the preceding claim, characterized in that the user interface also comprises means of controlling the display of the feeler line.